

REMARKS

Claims 1-40 are pending in this application. For purposes of expedition, claims 1-14, 23-24, 26, 29-30 and 35 have been amended in several particulars for purposes of clarity and brevity that are unrelated to patentability and prior art rejections in accordance with current Office policy, to further and alternatively define Applicants' disclosed invention and to assist the Examiner to expedite compact prosecution of the instant application.

Claims 23, 30 and 31 have been rejected under 35 U.S.C. §112, 2d ¶, as being indefinite. Specifically, the Examiner asserts that these claims "contain reproduced AV contents and multimedia element(s)" but do **not** comprise "a reproducing engine that actually is responsible for reproducing AV contents and multimedia element(s)." However, the Examiner's assertion is unwarranted and should be withdrawn for the following reasons.

First of all, independent claims 23, 30 and 31 are statutory method claims mandated under 35 U.S.C. §101 and used to define the process of synchronizing and reproducing interactive contents, as shown, for example, FIGS. 8-11. These method claims can be written to capture only the function of the invention divorced from the structure of the invention. There is **no** need to refer to a "reproducing engine", which can be software, hardware or firmware, for reproducing AV contents and multimedia element(s), as long as the function of "reproducing AV contents and multimedia element(s)" is defined. In fact, if such a "reproducing engine" is incorporated into method claims 23, 30 and 31, as seemingly suggested by the Examiner, the incorporation can make these claims even more indefinite.

Second, as a general principle, 35 U.S.C. §112, 2d ¶, requires that the claims be written such that, in light of the specification, one of ordinary skill in the art would understand the metes and bounds of the invention with a reasonable degree of precision. As such, claims that otherwise appear indefinite when read in a vacuum can be made definite upon review of the specification. In re More, 1619 USPQ 236, 238-239 (CCPA 1971). Therefore, in order to establish a prima facie case of indefiniteness, the Examiner needs to provide evidence that a claim limitation, in view of the specification and the prior art as understood by one of ordinary skill in the art, would be sufficiently unclear as to not allow the person skilled in the art to understand the metes and bounds of the claim. See MPEP 2173.02.

In the present invention, one skilled in the art would easily understand the metes and bounds of method claims 23, 30 and 31 if these claims are read in view of Applicants' specification, as shown in FIGS. 8-11.

In view of these reasons and explanations, Applicants respectfully request that the rejection of claims 23, 30 and 31 under 35 U.S.C. §112, 2d ¶, be withdrawn.

Lastly, base claims 1, 9, 15, 23, 29, 30 and 31 stand rejected under 35 U.S.C. §101, because the claimed invention is directed to non-statutory subject matter. In support of this rejection, the Examiner appears to allege that base claims 1, 9, 15, 23, 29 and 30 contain software programs and, as a result, these so-called software claims are non-statutory subject matter under MPEP 2106.01. However, the Examiner's analysis of MPEP 2106.01 is severely flawed for several reasons.

First of all, 35 U.S.C. §101, provides:

"Whoever invents or discovers any new and useful **process, machine**, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title."

Base claims 1, 9, 15, 23, 29 and 30 are not software claims as incorrectly characterized by the Examiner. Rather, base claims 1 and 9 are directed an apparatus (i.e., **machine**) having a practical application of synchronizing interactive contents and, likewise, base claims 15 and 23 are directed to a method (i.e., **process**) having a practical application of synchronizing interactive contents that are clearly designated as statutory classes under 35 U.S.C. §101, and that produce a useful, tangible, and concrete result, that is, to synchronize and mix multimedia elements with AV contents for a visual display on a screen of a display device. Therefore, even if "software programs" are defined in Applicants' base claims 1, 9, 15 and 23, the presence of such "software programs" does not render these claims outside the four enumerated categories of patentable subject matter recited in 35 U.S.C. §101 (i.e., process, machine, manufacture, or composition of matter).

On page 4 of the Office Action, the Examiner asserts the AV contents, as defined in base claims 1, 9, 15, 23, 29 and 30, are "a programming language such as Java script", as described in paragraph [0049] of Applicants' disclosure. However, the Examiner's assertion is factually incorrect. AV contents refer to audio-visual (AV) data obtained from either an optical disk or a

distributed network such as the Internet, as shown in FIG. 1, and **not** a software program as asserted by the Examiner. The cited paragraph [0049] of Applicants' disclosure refers to information that is used to synchronize with AV contents, and **not** the AV contents. Specifically, paragraph [0049] of Applicants' disclosure describes,

"information about synchronization with the AV contents is defined in forms of a <meta> tag and attributes, respectively. However, **the information about synchronization** with the AV contents may be defined in the form of a new tag or a programming language such as Java script. In other words, the information about synchronization with the AV contents can be included in the markup document using various methods. Manufacturers of AV/interactive contents include the information about whether multimedia elements included in their AV/interactive contents need to be synchronized with the AV contents in the markup document. Thus, a browser implemented by the present invention can control the multimedia elements as well as the AV contents by using corresponding information about synchronization with the AV contents in response to user input."

Second, MPEP 2106.01 does **not** stand for the legal proposition that "a software claim is non-statutory subject matter" as incorrectly asserted by the Examiner. Rather, MPEP 2106.01 provides a guideline for examining computer-related inventions in which descriptive material can be characterized as either "functional descriptive material" or "nonfunctional descriptive material." In the context of 35 U.S.C. §101, "functional descriptive material" consists of data structures and computer programs which impart functionality when employed as a computer component, whereas "[N]onfunctional descriptive material" includes but is not limited to music, literary works, and a compilation or mere arrangement of data.

According to MPEP 2106.01, the difference is significant. This is because, when non-functional descriptive material is recorded on some computer-readable medium, in a computer or on an electromagnetic carrier signal, it is not statutory under 35 U.S.C. §101 since no requisite functionality is present to satisfy the practical application. By contrast, when functional descriptive material is recorded on some computer-readable medium, it becomes structurally and functionally interrelated to the medium and will be statutory under 35 U.S.C. §101 since use of technology permits the function of the descriptive material to be realized.

In the present situation, base claims 29 and 30 are written in acceptable *Beauregard* format containing a software program for performing a method as defined in base claims 15 and 23, in deference to the Federal Circuit *En Banc* decision In re Beauregard, 53 F. 3d 1583 (1995)

in which a computer readable medium comprising instructions for causing a computer system to execute a method comprising specific steps, was expressly held statutory under 35 U.S.C. §101. Similar to In re Beauregard, Applicants' base claims 29 and 30 also define a computer readable medium comprising functional descriptive material that, when executed by a machine, performs a method of synchronizing interactive contents in a way that produce a useful, tangible, and concrete result, that is, to synchronize and mix multimedia elements with AV contents for a visual display on a screen of a display device. In other words, Applicants' base claims 29 and 30 are directed to "a tangible computer readable medium encoded with a data structure that defines structural and functional interrelationships between the data structure and the software/hardware components which permit the data structure's functionality to be realized".

Nevertheless, in the interest of expedition, base apparatus claims 1 and 9 have been amended along the line suggested on page 6 of the Office Action, to clearly define a reproducing apparatus provided with a storage and a control unit configured to perform those functions as recited therein to produce a useful, concrete, and tangible result as identified by MPEP §2106, that is, how "the multimedia elements are synchronized and mixed with the AV contents for a visual display on a screen of a display device," as shown in FIG. 1. However, express reference to a computer apparatus and a processor has been avoided in Applicants' base claims 1 and 9 because such reference is neither technically correct nor supported by Applicants' specification. For example, the apparatus, as shown in FIG. 1 of Applicants' disclosure, is not a computer per se as suggested by the Examiner. Rather, such apparatus is a reproducing apparatus, such as an optical disk player, and can be implemented in a computer system. With respect to base claims 15, 23, 29, 30 and 31, claims 15 and 23 are method claims and claims 29, 30 and 31 are Beauregard claims that cannot be amended, and should not be amended to define a computer apparatus as suggested by the Examiner.

In view of these reasons, explanations and amendments, Applicants respectfully request that the rejection of claims 1, 9, 15, 23, 29 and 30 under 35 U.S.C. §101 be withdrawn.

In view of the foregoing amendments, arguments and remarks, all claims are deemed to be allowable and this application is believed to be in condition to be passed to issue. Should any questions remain unresolved, the Examiner is requested to telephone Applicants' attorney at the Washington DC office at (202) 216-9505 ext. 232.

INTERVIEW:

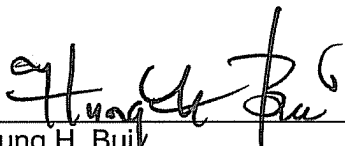
In the interest of expediting prosecution of the present application, Applicants respectfully request that an Examiner interview be scheduled and conducted. In accordance with such interview request, Applicants respectfully request that the Examiner, after review of the present Amendment, contact the undersigned local Washington, D.C. attorney at the local Washington, D.C. telephone number (202) 216-9505 ext. 232 for scheduling an Examiner interview, or alternatively, refrain from issuing a further action in the above-identified application as the undersigned attorneys will be telephoning the Examiner shortly after the filing date of this Amendment in order to schedule an Examiner interview. Applicants thank the Examiner in advance for such considerations. In the event that this Amendment, in and of itself, is sufficient to place the application in condition for allowance, no Examiner interview may be necessary.

To the extent necessary, Applicants petition for an extension of time under 37 CFR §1.136. If there are any additional fees associated with filing of this Amendment, please charge the same to our Deposit Account No. 503333.

Respectfully submitted,

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Date: 11/6/07

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